UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,812	07/10/2001	Andres Hejlsberg	MS1-866US	6426

22801 7590 05/22/2007		EXAMINER
LEE & HAYES PLLC		CAO, DIEM K
421 W RIVERSIDE AVENUE SUITE 500		
SPOKANE, WA 99201		

ART UNIT	PAPER NUMBER
2194	

NOTIFICATION DATE	DELIVERY MODE
05/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 February 2007*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-16 and 18-42* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-16,18-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.
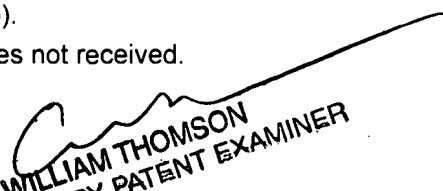
Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date *2/13/2007*.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   Claims 1, 3-16 and 18-42 are pending.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 1, 3-16, and 18-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. 101 for machine and manufacture claims is that the claims cover only embodiments which necessary meet the requirements to fall within a statutory category, i.e., the claims recite physical articles or objects to meet the requirements of being a machine or manufacture. For method claims and claims that recite a judicial exception (software), in addition to needing to meet the criteria above, the claim must be directed to a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result as evidence of it being a practical application.

Claims 1, 3-4, 16 and 18-27 fail to include any physical articles or objects, and the "network platform" in claims 16, 18-27 is software platform (see Specification, page 5, lines 10-15). Thus, claims 1, 3-4, 16 and 18-27 are directed to non-statutory subject matter.

Claims 5-14 are directed to an application programming interface which is an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application producing a concrete, useful, tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. The claim is just a mere arrangement of data (information)

without creating any functional interrelationship among the elements of the data structure.

Therefore, the claimed invention is directed to non-statutory subject matter. Furthermore, the

"computer readable media" as defined by the specification includes communication media, such

as data signal or carrier wave. In that event, the claims are directed to a form of energy which at

present the office feels does not fall into a category of invention.

See MPEP 2106 and 1207.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5.   Claims 1, 3-16 and 18-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the

relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention.

Claim1 recites "wherein calls to the application interface are handed to a common

language runtime layer that can translate Web application written in different languages into an

intermediate supported language", which is not support by the specification. The specification.

The specification discloses "the common language runtime 144 allow seamless multi-language

development, with cross language inheritance, and provide a robust and secure execution

environment for the multiple programming languages" (page 10, lines 20-22), and "Calls made

to the API layer 142 are handed to the common language runtime layer 144 for local execution

by the operating system 146(1) and/or object model services 146(2)" (page 11, lines 10-12).

Thus, the specification does not seem to disclose "the language runtime layer that can translate

Web application written in different languages into an intermediate supported language".

Examiner learned from "Presenting C#" (see PTO 892) that the applications written in

Visual Basic or C++ are compiled by C# compiler into managed code, also called Intermediate

Language (IL) code, and metadata along with the managed code. The metadata describes the

types in the code and is stored along with the code, which tells the runtime more about eh code.

During runtime, the Just-In-Time (JIT) compiler will convert the managed code into to managed

native code. Thus, based on the understand from the book, the calls that are handed to the

common language runtime layer is already in intermediate support format.

Claims 5, 16, 28, 29, 31 suffer the same problem as claim 1 above.

The claims are examined as understood based on the teaching of "Presenting C#".

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   **Claims 1, 3-16, and 18-42 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over Wille (Presenting C#) in view of Perry (Teach Yourself Visual Basic 6 in 21 Days).

As to claim 1, Wille teaches a software architecture for a distributed computing system comprising:

- an application configured to handle requests (a server that can provide a web page; page 112, section 'Building the component') submitted by remote devices over a network (a client application; page 115, section 'Creating a Simple Client Application'), and

- an application program interface (WebRequest, WebResponse, WebRequestFactory; page 113, lines 31-33) to present functions used by the application to access network and computing resources of the distributed computing system (retrieve a Web page from the server; page 112, section 'Building the Component'), wherein calls to the application program interface are handed to a common language runtime layer that can support Web applications written in different languages (NGWS runtime environment; page 16-17, section 'NGWS Runtime') wherein the applications have been compiled into an intermediate supported language (managed code and meta-data; pages 16-17, section 'NGWS Runtime').

Wille does not explicitly teach the application interface comprising various types related to constructing user interfaces. However, Wille teaches the application can be written in Visual Basic (Visual Basic; page 16, section 'NGWS Runtime'). Perry teaches the application interface comprising various types related to constructing user interface (The Form Window, the Toolbox; pages 36-37).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of Perry to the system of Wille to get full understanding how to construct user interface of the client application.

As to claim 3, Wille teaches wherein the distributed computing system comprises client devices and server devices that handle requests from the client devices, the remote devices comprising at least one client device (a server that can provide a web page; page 112, section 'Building the component', a client application; page 115, section 'Creating a Simple Client Application').

As to claim 4, Wille teaches the distributed computing system comprises client devices and server devices that handle requests from the client devices, the remote devices comprising at least one server device that is configured as a Web server (a server that can provide a web page; page 112, section 'Building the component', a client application; page 115, section 'Creating a Simple Client Application' and WebRequest, WebResponse, WebRequestFactory; page 113, lines 31-33).

As to claim 41, Wille teaches the various types comprises classes (page 48-49, section 'The class type'), interfaces (An interface declares a reference type that has abstract member only; pages 49-50, section 'Interfaces'), delegates (A delegate ... pointers; page 50, section 'Delegates'), structures (struct Type can declare ... nested type; pages 46-47, section 'struct Type') and enumerations (Enumeration Type; page 47, section 'Enumeration Types').

As to claim 5, Wille teaches

- classes which represent managed heap allocated data that has reference assignment semantics (page 48-49, section 'The class type'),

- interfaces that define a contract that other types can implement (An interface declares a reference type that has abstract member only; pages 49-50, section 'Interfaces'),

- delegates that are object oriented function pointers (A delegate ... pointers; page 50, section 'Delegates'),

- structures that represent static allocated data that has value assignment semantic (struct Type can declare ... nested type; pages 46-47, section 'struct Type'), and

- enumerations which are value types that represent named constants (Enumeration Type; page 47, section 'Enumeration Types'),

- wherein the application program interface is associated with a common language runtime layer that can support Web applications written in different languages (NGWS runtime environment; page 16-17, section 'NGWS Runtime') wherein the applications have been compiled into an intermediate supported language (managed code and meta-data; pages 16-17, section 'NGWS Runtime').

Although Wille does not explicitly teach the types related to constructing user interface, Wille teaches a client application requests a web page from a server (a server that can provide a web page; page 112, section 'Building the component', a client application; page 115, section 'Creating a Simple Client Application' and WebRequest, WebResponse, WebRequestFactory; page 113, lines 31-33). Wille further teaches the application can be written in Visual Basic (Visual Basic; page 16, section 'NGWS Runtime'). Perry teaches the application interface

comprising various types related to constructing user interface (The Form Window, the Toolbox; pages 36-37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of Perry to the system of Wille to get full understanding how to construct user interface of the client application.

As to claim 6, Perry teaches the classes comprise a form class that represents a window or a dialog box that makes up an application's user interface (Most of your work ... user see ... Form window appears; page 37, section 'The Form Window' and Fig. 2.3).

As to claim 7, Perry teaches the form class has multiple members comprising one or more of public static properties, public static methods, public instance constructors, public instance methods, public instance properties, public instance events, protected instance properties, and protected instance methods (see Fig. 2.3, Properties section).

As to claim 8, Perry teaches the interfaces comprise a button control interface that allows a control to act like a button on a form (Command Button, Option Button, Text Button; see Fig. 2.2 and 2.3).

As to claim 9, Perry teaches the interfaces comprise a container control interface that provides functionality for a control to act as a parent for other controls (Group Options with the Frame Control; page 187).

As to claim 10, Perry teaches the interfaces comprise an editing notification interface (Use a text box control when you want the user to type something; pages 70-71, section 'The Text Box Control').

As to claim 11, Perry teaches interfaces comprise a data object interface that provides a format independent mechanism for transferring data (ADO object; page 582, section 'Advanced Database Controls').

As to claim 12, Perry teaches the interfaces comprise a feature support interface that specifies a standard interface for retrieving feature information from a current system (The Windows API ... form the Windows itself; page 656, pages 716-717).

As to claim 13, Perry teaches the interfaces comprise a message filter interface (Filter property; page 276).

As to claim 14, Perry teaches the interfaces comprise a handle-exposing interface to expose handles (A file handle, also called a channel ... Open statement; page 370, section 'The Open Statement').

As to claim 15, see rejections of claims 8-14 above.

As to claim 31, Wille teaches

- a name space with functions (namespaces; pages 117-118, section 'Working with

   Namespace' and 'Wrapping a Class in a Namespace);

- classes which represent managed heap allocated data that has reference assignment

   semantics (page 48-49, section 'The class type'),

- interfaces that define a contract that other types can implement (An interface declares a

   reference type that has abstract member only; pages 49-50, section 'Interfaces'),

- delegates that are object oriented function pointers (A delegate ... pointers; page 50,

   section 'Delegates'),

- structures that represent static allocated data that has value assignment semantic (struct

   Type can declare ... nested type; pages 46-47, section 'struct Type'), and

- enumerations which are value types that represent named constants (Enumeration Type;

   page 47, section 'Enumeration Types'),

Although Wille does not explicitly teach the types related to constructing user interface,

Wille teaches a client application requests a web page from a server (a server that can provide a

web page; page 112, section 'Building the component', a client application; page 115, section

'Creating a Simple Client Application' and WebRequest, WebResponse, WebRequestFactory;

page 113, lines 31-33). Wille further teaches the application can be written in Visual Basic

(Visual Basic; page 16, section 'NGWS Runtime'). Perry teaches the application interface

comprising various types related to constructing user interface (The Form Window, the Toolbox;

pages 36-37).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to apply the teaching of Perry to the system of Wille to get full understanding how to

construct user interface of the client application.

As to claim 32-40, see rejection of claims 6-14 above.

As to claim 16, see rejection of claim 1 above.

As to claim 28, see rejection of claim 1 above. Wille further teaches a computer system

including one or more microprocessors and one or more software programs (inherent from a

server that can provide a web page; page 112, section 'Building the component', a client

application; page 115, section 'Creating a Simple Client Application' and WebRequest,

WebResponse, WebRequestFactory; page 113, lines 31-33). Perry teaches the one or more

software programs utilizing an application program interface to request services from an

operating system (Window APIs; pages 716-717).

As to claim 29, see rejection of claim 5 above.

As to claim 30, Wille teaches receiving a request from a remote computing device, the

request containing a call to the set of functions (WebResponse, WebRequestFactory; page 113,

lines 31-33).

As to claims 18-27, see rejections of claims 6-15 above.

As to claim 42, see rejection of claim 41 above.

Response to Arguments

6.   Applicant's arguments with respect to claims 1, 3-16 and 18-42 have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Diem K. Cao whose telephone number is (571) 272-3760. The

examiner can normally be reached on Monday - Friday, 7:30AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC
April 27, 2007

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER